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AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A method ~~associated with a~~ of analyzing an industrial process comprising:

- a. building a ~~general purpose~~ graphical flowsheet for said industrial process;
~~said general purpose flowsheet representing a model of said process;~~
- b. generating said ~~a~~ model of said industrial process from said ~~general purpose~~ graphical flowsheet;
- ~~c. executing upon said model generated from said general purpose flowsheet applications selected from simulation, estimation and optimization~~
- c. collecting information from said model;
- d. determining a value of a process variable of said industrial process using a solution engine and said collected information; and
- e. storing said determined value of said process variable in a file.

2. (Currently Amended): The method of claim 1 wherein said building of said ~~general purpose~~ graphical flowsheet for said industrial process comprises:

- a. ~~selecting the solid, liquid and/or gas components of said process~~ providing a library of apparatus icons;
- b. selecting from a said library of ~~apparatus icons~~ the icons of the apparatus icons associated with said industrial process; and
- c. connecting said selected apparatus icons with ~~streams comprised of said selected components to produce said general purpose flowsheet~~ stream connectors carrying process variable information.

3. (Currently Amended): The method of claim 1 wherein said ~~applications may be either on-line or off-line applications~~ solution engine is an on-line application.

4. (Currently Amended): The method of claim 1 wherein ~~said applications may be either steady state or dynamic applications~~ said solution engine is a steady state application.

5. (Currently Amended): The method of claim 1 wherein said industrial process may be either a batch process, a continuous process or another type of process is a batch process.

Claims 6-13 (Canceled).

14. (New): The method of claim 1, wherein said solution engine is an off-line application.

15 (New): The method of claim 1, wherein said solution engine is a dynamic application.

16. (New): The method of claim 1, wherein said industrial process is a continuous process.

17. (New): The method of claim 1, wherein said step of generating said model of said industrial process comprises:

collecting operation data from said industrial process; and

using said solution engine to determine parameters of said model from said collected operation data.

18. (New): The method of claim 1, wherein said industrial process is a wood pulping process.

19. (New): The method of claim 1, wherein said solution engine is an equation-oriented simultaneous solver for differential-algebraic equation systems.

20. (New): The method of claim 1, further comprising generating a report containing said determined value of said process variable.